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ABSTRACT

This unit of study walks early elementary students through the basics of counting and using the smallest U.S. coin denominations (penny, nickel, and dime). The unit provides keywords; recommends subject areas and approximate length of time; poses an essential question or problem; provides a unit introduction; outlines five individual lessons ((1) Introduction to Coins; (2) Trading Pennies and Nickels; (3) Counting by 10s, 5s, and 1s; (4) Adding Pennies, Nickels and Dimes; (5) Let's Go Shopping!); and suggests a culminating activity. Each of the five lessons highlights subject areas; provides keywords and a brief description; addresses national standards and additional subject area standards; notes objectives; lists materials needed; outlines a detailed step-by-step procedure for classroom implementation; addresses assessment; and suggests differentiated learning options. (BT)

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Pennies (Nickels and Dimes) From Heaven Unit Plans

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Unit Plans

Pennies (Nickels and Dimes) From Heaven

Description of Unit:

This unit walks early elementary aged students through the basics of counting and using the smallest U.S. coin denominations (the penny, nickel, and dime).

Keywords:

- Addition
- Coin Combinations
- Coins
- Counting
- Dime
- Math Games
- Money
- Nickel
- Number Sense
- Penny
- Value

Grade Level(s): K-2

Main Subject Area: Mathematics

Additional Subjects:

- Language Arts
- Science
- Social Studies

Approximate Length of Time: 1 week

Essential Question or Problem:

How do people use coins in their every day life?

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Unit Introduction:

Coins are used every day. Whether in paying a parking meter, or making change, coins are the most basic part of our monetary system. This unit gives early learners the chance to learn how to count and eventually use pennies, nickels, and dimes for purchases.

Individual Lessons:

1. An Introduction to Coins
2. Trading Pennies and Nickels
3. Counting by 10s, 5s, and 1s
4. Adding Pennies, Nickels and Dimes
5. Let's Go Shopping!

Culminating Activity:

"Let's go Shopping!" Lesson. This is an activity where the students apply their knowledge of creating combinations of pennies, nickels and dimes to "purchase" their daily snacks.

Lesson Plans

An Introduction to Coins

Main Subject Area: Mathematics

Additional Subjects: Language Arts, Science, Social Studies

Duration of Lesson: 45 minutes

Keywords:

- Coins
- Dime
- Money
- Nickel
- Penny
- Value

Brief Description:

Early elementary students will examine the features and values of pennies, nickels, and dimes.

National Standard(s):

- Number and Operations
- Communication
- Connections

Additional Subject Area Standard(s):

- Demonstrate competence in speaking and listening as tools for learning
- Individuals, Groups, and Institutions
- People, Places, and Environment
- Science as inquiry

Objectives:

Students will examine different coins and identify their characteristics and value.

Students will place coins in order according to value.

Materials (online):

Materials (offline):

For each student: 1 Mint or cough drop tin

10 pennies, 5 nickels, and 5 dimes (real) for each tin

large paper coins (for whole class instruction)

Coins Used in Lesson:

Circulating U.S. pennies, nickels, and dimes

Grade Level(s): K-2

Procedures (online):

Procedures (offline):

1. Start this lesson by placing a handful of coins in a spot where all the children can see them. Ask your students what they see. Continue the discussion by asking, "What do we use coins for? Do you ever use coins? When have you used coins?"

2. Explain that over the next few days you will be looking closely at coins to learn how to use them correctly.

3. Rules of activity: Each child will be given a box of coins. Until all directions are given, the coins are to remain in their boxes. All coins and boxes MUST remain in their work areas at all times (whether on the floor or on their desks). When the class uses the coins, just take out the number of coins they will need to do the problem.

4. Distribute the boxes of coins to each child.

5. Begin by having the students take a penny out of their box and let them look at it.

6.Ask several questions and chart their responses by using a web as a graphic organizer.

- Can anyone tell me what this coin is called?

- Just by looking at the coin what can you tell me about it?

- Does anyone know whose face is on the coin?

- What do you know about this person (Build on this a little)?

- Have you ever seen the building on the back of this coin (reverse)?

- What is this building called?

- Does this coin have writing on it? What does it say?

- What does 'Liberty' mean? Why might this coin say Liberty on it?

7. Direct their attention to where the coin says "One Cent" and explain that every coin has a value. Write this word on the board and see if the students know what "value" means.

8. Have your students put the penny back in the box and take out a nickel to examine.

9. Ask similar questions as asked in step 6, and chart the responses on a new web. See if your students can find the value of the nickel. If a penny is worth one cent, and a nickel is worth 5 cents, how many pennies equal a nickel?

10. Have your students put the nickel back in the box and take out a dime to examine.

11. Ask similar questions as asked in step 6, and chart the responses on a new web. Mention that there is a memorial to FDR in Washington, DC, but it is not on the reverse. What is on the coin's reverse instead? See if your students can find the value of the dime. If a penny is worth one cent, and a dime is worth 10 cents, how many pennies equal a dime?

12. Review the values of each coin and ask which coin has the greatest value? Which has the least value? Which is the largest coin? Which is the smallest coin? Does it matter which coin is biggest in size? Why or why not?

13. Have the students lay out all their dimes in a row and count them. How many do they have?

14. Now, have the students take out the rest of their coins and continue the row by placing the coins in order of the ones with the greatest value to the

ones worth the least value. What comes after dimes? How many nickels do they have? What comes after nickels? How many pennies do they have?

15. As a class count the value of all the pennies (1,2,3…10 cents). Do the same thing with nickels (5,10,15…25 cents) and dimes (10,20,30…50 cents).

16. Discuss the fact that even though there are more pennies than dimes in the box, the dimes are worth much more than the pennies. And even though there are the same number of nickels and dimes, the dimes are worth more money than the nickels.

Assessment / Evaluation:

Did the students participate in the discussion about the different coins? Were they able to differentiate between the coins? Were they able to organize the coins? Did the student demonstrate the understanding of the meaning value? Did the students learn the value of each coin?

Differentiated Learning Options:

As a follow up to this activity, give your students a homemade worksheet where they have to cut out and match the front and back of the different coins. Have them paste their coins to a blank piece of paper and write the coin's value next to each pair and check their answers with a partner.

Lesson Plans

Trading Pennies and Nickels

Main Subject Area: Mathematics

Duration of Lesson: 45 minutes

Keywords:

- Addition
- Coin Combinations
- Coins
- Money
- Nickel
- Penny
- Value

Brief Description:

Students will correctly identify the each coin's value, and will add pennies and nickels to arrive at a designated amount.

National Standard(s):

- Number and Operations
- Problem Solving
- Communication

Additional Subject Area Standard(s):

Objectives:

The students will correctly identify the coins being discussed and each coin's value.

The students will add pennies and nickels to arrive at the designated total marked on their envelope.

Materials (online):

Materials (offline):

For each student:

1 Mint or cough drop tin 10 pennies, 5 nickels (real) for each tin

For whole class instruction-

large paper coins

large paper coin holder

25 envelopes with change amounts written on them

Coins Used in Lesson:

Circulating U.S. pennies and nickels

Grade Level(s): K-2

Procedures (online):

Procedures (offline):

1. Place a pile of mixed coins (pennies and nickels) where all the students can see them. Ask the students several questions to initiate conversation.

- What is this? (a pile of coins)

- How much money do I have here?

- How can I find out how much money is in the pile?

- Do I count the coins, or is there something else I need to know about the coins to find out how much money I have? (You need to know the values of each coin and add the values together)

2. Review the 2 coins you will be working with (penny and nickel). How much are they each worth? Which is worth more money?

3. Review the rules of using coin boxes with your students.

4. Give each student a coin box. Have them add these combinations, using the coins in their workspace.

- How much money do I have if I have one penny and find three more?

- How much money will I own if I have a nickel and three pennies?

Continue with this line of questioning a few more times.

5. Assign students to work in pairs. Distribute an envelope to each student.

6. Using their pennies and nickel, the students will place the specific amount of money (as written on the front of each envelope) inside each envelope.

7. After placing the coins in the envelope, the students trade envelopes with their partner. Students can check their partner's work to make sure that it is correct.

8. After each person has checked their partner's change, it is their turn to come up with the correct amount on their new envelope by using a different coin combination than their partner used.

9. The partners trade envelopes again and check the work of their partner.

10. Once each partner has completed the activity, the students trade envelopes with another group. Each group repeats the activity using their 2 new envelopes.

11. Have all the students return their coins to the appropriate boxes and regroup the class.

12. Invite students to come to the front of the room to illustrate two ways of producing the same value (using only the large paper pennies and nickels)

13. Closure - How did it feel to figure out these amounts? Was it easy or hard? What coins did you tend to exchange when you had to think of another way to express the same amount using only these coins?

Assessment / Evaluation:

Were the students able to work in pairs? Did they follow directions? Were they able to develop different combinations of coins for the same amount? Did they have difficulty with this task? Did they see that 5 pennies are worth 1 nickel?

Differentiated Learning Options:

Lesson Plans

Counting by 10s, 5s, and 1s

Main Subject Area: Mathematics

Duration of Lesson: 30 minutes

Keywords:

- Coins
- Counting
- Dime
- Math Games
- Nickel
- Penny
- Value

Brief Description:

Students will practice counting by 10s, 5s, and 1s in order to prepare for counting and adding the values of coins.

National Standard(s):

- Number and Operations
- Connections

Additional Subject Area Standard(s):

Objectives:

Students will practice counting by 10s, 5s, and 1s in order to prepare for counting and adding the values of coins.

Materials (online):

Materials (offline):

A Number Chart (1 - 100)

Large paper coins

Coins Used in Lesson:

Circulating U.S. pennies, nickels, and dimes

Grade Level(s): K-2

Procedures (online):

Procedures (offline):

1. Motivation - Tell your students that today you will be playing a game to get them ready to be able to count with pennies, nickels and dimes.

2. Game rules - Each student will get a chance to participate - The students will start counting from one (follow their words by pointing at the corresponding numbers on the chart) - As each student continues counting, hold up the number of fingers you want your students to count by (1, 5, or 10) - Stop when the student gets to 100.

3. Continue this game with about half of your class (holding your fingers up in a different sequence for each child, and getting progressively more difficult)

4. Now stop your students and review the values of each coin.

5. Change the rules of the game slightly - instead of holding up fingers, hold up the paper coin versions of the penny, nickel, and dime.

6. Return to the game and have the remaining half of your class skip count by 10s, 5s, and 1s, but making the association between the coins and their values.

Assessment / Evaluation:

Were the students able to switch over from counting by tens to fives? Fives to ones? By the end of the activity, were the students able to make the transitions smoothly? Can they count by tens, fives and ones?

Differentiated Learning Options:

Lesson Plans

Adding Pennies, Nickels and Dimes

Main Subject Area: Mathematics

Duration of Lesson: 45 minutes

Keywords:

- Addition
- Coin Combinations
- Coins
- Counting
- Dime
- Money
- Nickel
- Number Sense
- Penny
- Value

Brief Description:

Students will add pennies, nickels and dimes and will organize the coins to display a variety of price values from real life examples.

National Standard(s):

- Number and Operations
- Problem Solving
- Communication
- Connections

Additional Subject Area Standard(s):

Objectives:

Students will add pennies, nickels and dimes and will organize the coins to display a variety of price values. Students will discuss the importance of money in the day-to-day world.

Materials (online):

Materials (offline):

Several full and empty containers for grocery store products

Large paper coins Pocket Chart (for large paper coins)

Number chart (1-100)

Mint tins (one for each student) 10 pennies, 5 nickels, 5 dimes (real or plastic) for each tin

Price strips (strips of paper with product pictures and prices on them)

Pencils

Coins Used in Lesson:

Circulating U.S. pennies, nickels, and dimes

Grade Level(s): K-2

Procedures (online):

Procedures (offline):

1. Motivation- Fill a student's hands with several grocery store products and ask your class some questions:

- If I went to the store and wanted to buy all these items what do I need to know about them before I can pay? (price of each item)

- Why? (So, you'll know how much money you'll need)

- To do what? (To pay the cashier)

2. Introduce the activity by stating, "Today you'll be adding pennies, nickels and dimes so that you will be able to purchase things you need."

3. Start a discussion about the uses of money:

- What do we use money for in our daily lives?

- What kind of things can you buy with money?

- I can think of some times when I don't actually buy something, but I'm paying for a machine or person to do something for me. Can anyone think of one of these types of purchases? (arcade games, movie, riding public transportation, etc.)

4. Explain that today you'll to be discussing how to use coins to buy certain items. Review coin names and values with class. Which coin is worth the most in value? The least?

5. Hold up one of the grocery items and tell the class that at the grocery store this item cost 47 cents.

- What coins could we use to make 47 cents? (pennies, nickels and dimes) Why?

- What coin would we start with to count out the price of this product? (a dime) Why? (It's worth the most of these three coins, and when we are trying to figure out change, we are always going to start by counting the most valuable coin we can use) - If we start with a dime, what are we going to be counting by (10s)

6. Start counting together by placing the large paper coins in the pocket chart for all students to see.

- If I put in one dime, how much money do I have? (10 cents) If I add another dime, how much money do I have now? (20 cents) If I add another one? (30 cents)And another? (40 cents)

- Should I add another dime? Use the number chart to show the students your goal (47) and how much money you currently have. Why should we or should we not add another dime?

- How much more change do we need to get to 47 cents? (7 cents) What coins do we have that are less than 7 cents? Which is the larger of the 2 coins that are less than 7 cents? If I add a nickel to the 40 cents we already have how much money will I have? Add the nickel to the pocket.

- If I add another nickel is that too much or too little money? So, what coin should we use to get to 47 cents? How many pennies should we add to get from 45 cents to 47 cents? Add 2 pennies to the pocket.

7. As a class count the value of all the coins (10, 20, 30, 40, 45, 46, 47 cents)

8. Gauge the class' comprehension and ask some volunteers to demonstrate how to add coins to find the value of a second product.

9. Have the students work independently to figure out the prices of 2 more items with the change in their tins. Review the rules for using the coins before distributing them.

10. Have your students work in partnersand give each pair 2 price sheets (a strip of paper with a picture of a grocery item and a corresponding price and area for the student to write). One student will count and lay out the coins on the sheet, and their partner will check their work. When the student partner has checked the work, go around to verify the pair's work.

11. Once the work has been verified, the first partner will trace the coins onto the strip and write the value of the coin inside each circle.

12. While the tracing is going on, the second partner can begin to count out the coins for the second product.

13. Repeat the verification and tracing process for this second strip.

14. Allow some of the students to share their work with the class.

15. Review with the class what they worked on today.

Assessment / Evaluation:

Were the students able to organize the coins from the information they learned? Were they able to create correct coin combinations using dimes, nickels and pennies? Use a rubric to evaluate the students' problem solving process.

Differentiated Learning Options:

Begin a discussion of greater than and less than as an extension of this activity.

Lesson Plans

Let's Go Shopping!

Main Subject Area: Mathematics

Duration of Lesson: 45 minutes

Keywords:

- Addition
- Coin Combinations
- Coins
- Counting
- Dime
- Money
- Nickel
- Number Sense
- Penny
- Value

Brief Description:

Students will apply their knowledge of adding coins to a real life situation when they create different coin combinations to buy their daily snack.

National Standard(s):

- Number and Operations
- Problem Solving
- Communication
- Connections

Additional Subject Area Standard(s):

Objectives:

Students will apply their knowledge of adding coins to a real life situation.
Students will create different coin combinations to buy their snack.

Materials (online):

Materials (offline):

Snack foods (popcorn, apple slices, crackers, pretzels, granola bars)

Drinks (juice and water)

Mint or cough drop tins (one for each student)

10 pennies, 5 nickels, and 5 dimes (plastic) to go in each student's tin

A price list

A parent helper/teacher's aide if at all possible

Coins Used in Lesson:

Circulating U.S. pennies, nickels, and dimes

Grade Level(s): K-2

Procedures (online):

Procedures (offline):

1. Ask students if they have ever been to a restaurant or a grocery store. What do you do at these places? (Buy food) What do you need to know about an item before you know whether or not you can afford to buy it?

2. Introduce the students to the class store. Everyone will buy their snacks today with the money in their mint tins.

3. Rules for the purchase:

- Students will decide what they would like to buy for a snack and count out their coins (using only the coins in their boxes) at their seats to see if they have enough money to buy what they want

- Students MUST buy a napkin with their snacks

- When the student is ready to buy his/her snack, direct them to come to the counter (wherever you have the snacks laid out) with his/her tin of change

- The student must count out the cost of each item and lay the change on the

table as they count it out.

- Once the student has laid out all the money he/she plans to spend, direct the student to reorganize the change and add the prices all together to find the total cost of the snack.

- The prices are as follows: 1 napkin is 7 cents, 1 glass of water is 15 cents, 1 cup of juice is 23 cents, 5 crackers are 43 cents, 5 apple slices are 46 cents, 1 handful of popcorn is 49 cents, 1 handful of pretzels is 51 cents, and a granola bar is 54 cents

- Once the students have paid for their food, they will put their coins back into the tins and turn the tins in exchange for their snacks.

- Once the students have finished their snacks, all trash must go in the trashcan, and the students must return to their seats.

4. Have the entire class walk through the process of purchasing their snacks.
5. Regroup your students after they have eaten their snacks and have them reflect on this activity. Why did they have to buy their snacks today? Do they think they will ever need to figure out the prices of food again? Where?

Assessment / Evaluation:

Were the students able to apply what they knew about adding coins to a real-life situation? Did the students think through their choices? Were they able to create the correct change for each item? Were they able to add the prices of each item together?

Differentiated Learning Options:

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